Flood Risk Assessment

4 Meadow Close HA4 8AP

Flood Risk Assessment

18th June 2024

Rev -

Site Description

The application property comprises a 1-storey bungalow with side garage and large front and rear gardens.

The property is situated north of Evelyn Avenue.

Scope of the Appraisal

The appraisal has been undertaken in accordance with the criteria set out for Flood Risk Assessments in the Planning Policy Statement 25 – Development and Flood Risk (PPS 25) and to ensure that due account is taken of industry best practice, it has been carried out in line with the CIRIA Report C624 'Development and flood risk guidance for the construction industry'.

Having discussed our proposals with the Environment Agency we understand that our proposed development is categorised under Strategic Flood Risk Assessment (SFRA) **Flood Zone 2** – An area with a medium probability of flooding.

The Proposed Development

The proposal involves the demolition of a single storey side garage, to be rebuilt as a study and bathroom with a 3 meter extension.

Local Planning Authorities (LPA) are encouraged to take a risk-based approach to proposals for development in or affecting flood risk areas through the application of the sequential test. Generally, when drawing up or revising development plans, priority should be given to low risk areas (Zone 1) and then in descending order of the remaining flood zones set out below.

Zone 1 – Low probability of flooding – This zone is assessed as having less than a 1 in 1000 annual probability of river or sea flooding in any one year.

Zone 2 – Medium probability of flooding – This zone comprises land assessed as having between a 1 in 100 and 1 in 1000 annual probability of river flooding or between 1 in 200 and 1 in 1000 annual probability of sea flooding in any one year.

Zone 3a – High probability of flooding **-** This zone comprises land assessed as having a 1 in 100 or greater annual probability of river flooding or 1 in 200 or greater annual probability of sea flooding in any one year.

Zone 3b – The Functional Floodplain – This zone comprises land where water has to flow or be stored in times of flood and can be defined as land which would flood during an event having an annual probability of 1 in 20 or greater. This zone can also represent areas that are designed to flood in an extreme event as part of a flood alleviation or flood storage scheme.

SFRA confirms that all development should be guided towards areas of lowest risk within the site, and that development should be designed in strict accordance with the development control recommendations set out in Section 7.4 of the SFRA.

The Flood Risk Map (included with this application) shows the location of the development site with respect to the surrounding area and the coastal landscape.

Rainwater Runoff

Rainwater runoff from the proposed extension would be no greater than the current drained hard standing at ground level. Our proposals represent a small addition development area which is to be drained via the existing drainage system.

Flood Resilience

Floodwater can find its way into properties through a variety of routes including:

- Ingress around closed doorways.
- Ingress through airbricks and up through the ground floor.
- Backflow through overloaded sewers discharging inside the property through ground floor toilets and sinks.
- Seepage through the external walls.
- Seepage through the ground and up through the ground floor.
- Ingress around cable services through external walls.

In all flood risk areas, the incorporation of flood resilience measures can greatly reduce the cost of damage to the building and speed up the recovery time. We intend to take on board the applications as outlined below.

Services

With regards to refurbishment works, mount boilers on a walls above the level that floodwater is likely to reach. Move electrics to at least one meter above floor (or well above likely flood level) with cables dropping from an upper-level distribution down to power outlets at high level on the walls. Also ensure that the service meters are at least one meter above floor level (or well above likely flood level) and place them in plastic housings. Although, most of these items are not revenant on this project.

Drainage System Measures

Use of an anti-siphon toilets and for the private sewer system, install non-return valves or anti-flooding devices.

a. Conclusions: Appropriateness of the Development

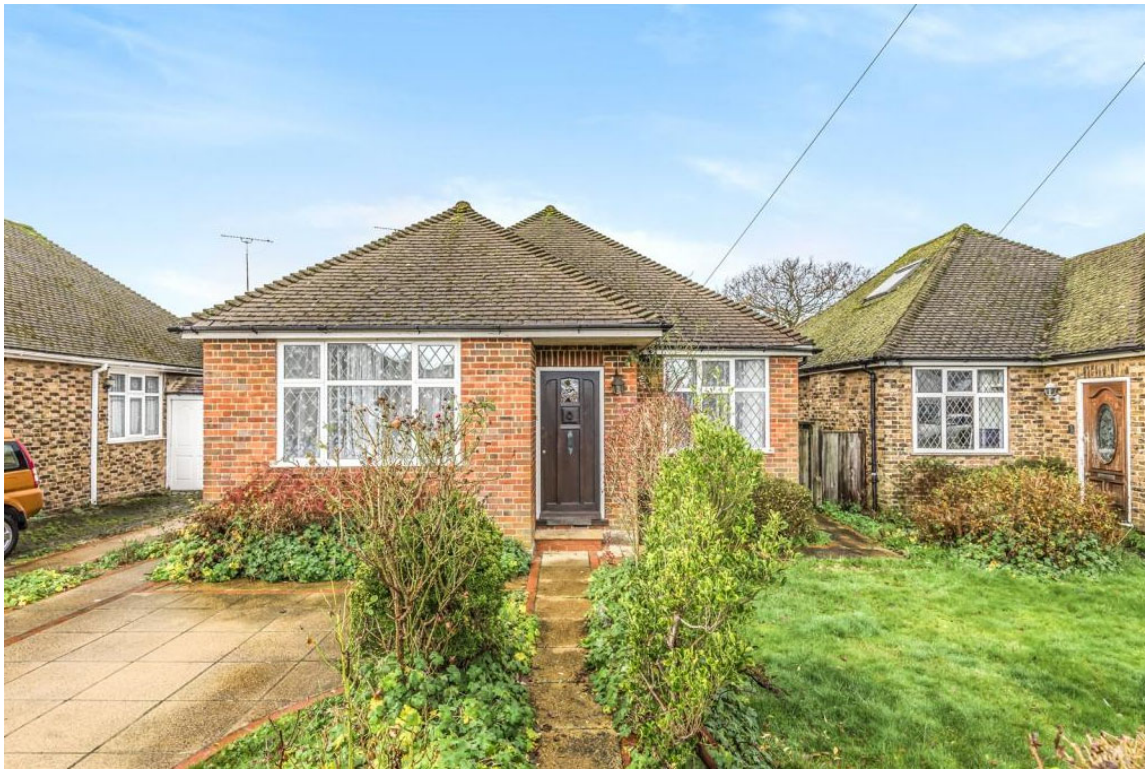
In determining whether the proposal for the ground floor demolition, rebuilding and rear extension is sustainable in terms of flood risk and compliant with PPS25 there are several key considerations. These are primarily associated with whether the development can be altered in a way which does not place the residents at risk from flooding and whether the development will have an adverse effect on flood risk elsewhere.

It has been established that the proposed development is situated within a Zone 3 flood risk area and is a development type that is classified; however, the likely hood of flooding is significantly reduced to a Low-Risk or negligible category due to the nature and location of the changes.

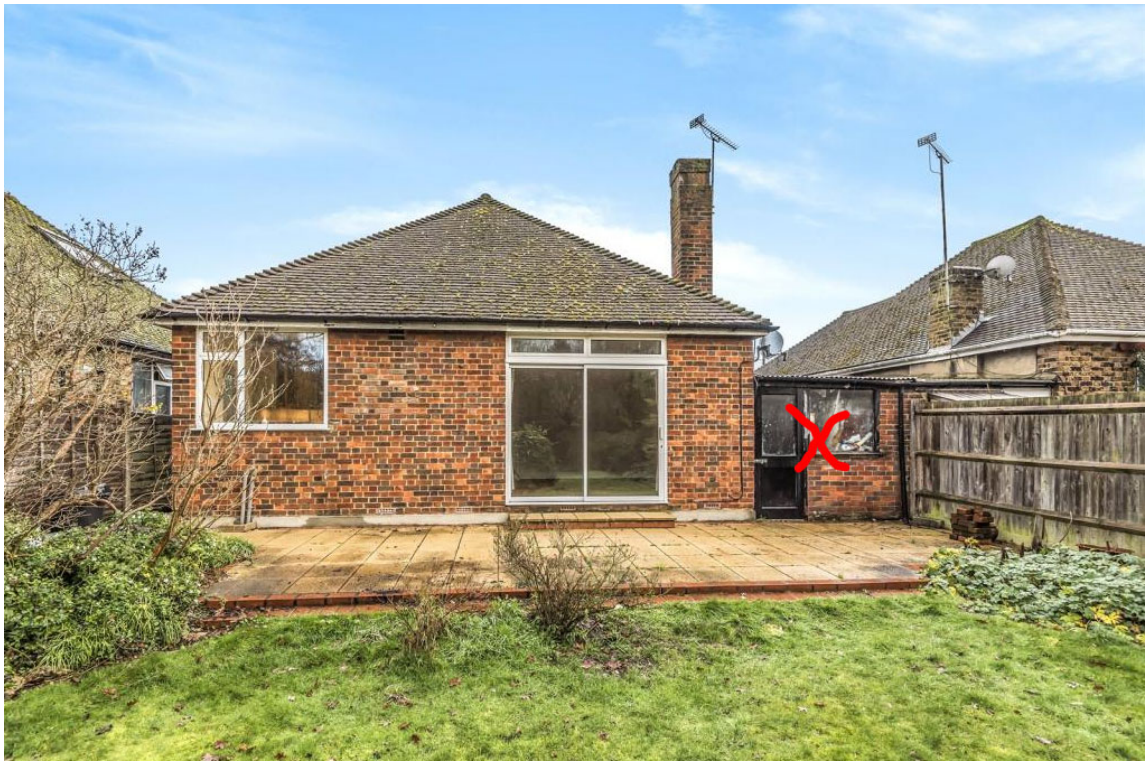
The risk of flooding has been considered across a wide range of sources and it is only the risk of tidal flooding that has been shown to have any significant bearing on the development and therefore we consider that the proposals are in accordance with the recommendations of PPS25.

Furthermore, it can be concluded from Planning Practice Guidance, Flood Zone and Flood Risk tables (table 3): Flood risk Vulnerability and Flood Zone compatibility, that flood zone compatibility for development within zone 2 and 3 is deemed appropriate for less vulnerable classification, and that sequential and exceptional tests do not need to be applied to minor development with a floor area of less than 250m2 and where proposed floor levels are generally 300mm or greater above ground levels.

Site photos



Front view



Rear view

Garage to be demolished

Flood map for planning

Your reference	Location (easting/northing)	Created
<Unspecified>	**509926/188154**	**18 Jun 2024 13:32**

Your selected location is in flood zone 2, an area with a medium probability of flooding.

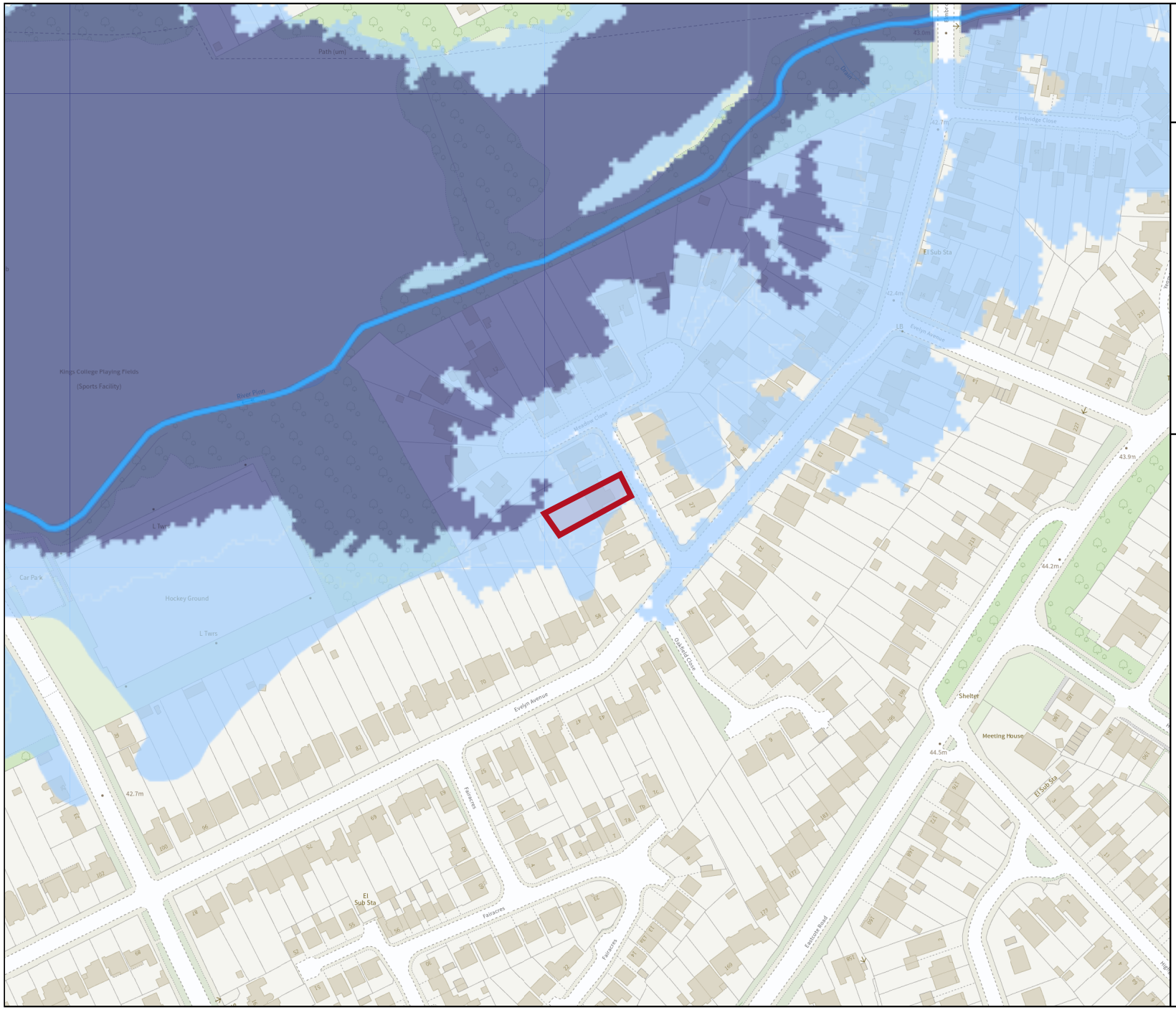
This means:

- you must complete a flood risk assessment for development in this area
- you should follow the Environment Agency's standing advice for carrying out a flood risk assessment (see www.gov.uk/guidance/flood-risk-assessment-standing-advice)

Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.



Environment Agency

Flood map for planning

Your reference
<Unspecified>

Location (easting/northing)
509926/188154

Scale
1:2500

Created
18 Jun 2024 13:32

- Selected area
- Flood zone 3
- Flood zone 2
- Flood zone 1
- Flood defence
- Main river
- Water storage area

0 20 40 60m